

2 Synopsys

2.1 Narrative (LT, UTC, unless specified)

On Sunday, November 10th 2019, around 15:30, the fv Z.15 – ZILVERMEEUW moored at Milford Docks, Wales, UK. An additional crewmember was to embark and the catch was to be landed. The crew also wanted to take advantage of the time in port to carry out some repairs to the fishing gear.

The vessel had planned to go to sea again the next day, but due to problems with the VMS, the vessel had an unplanned prolonged stay in port.

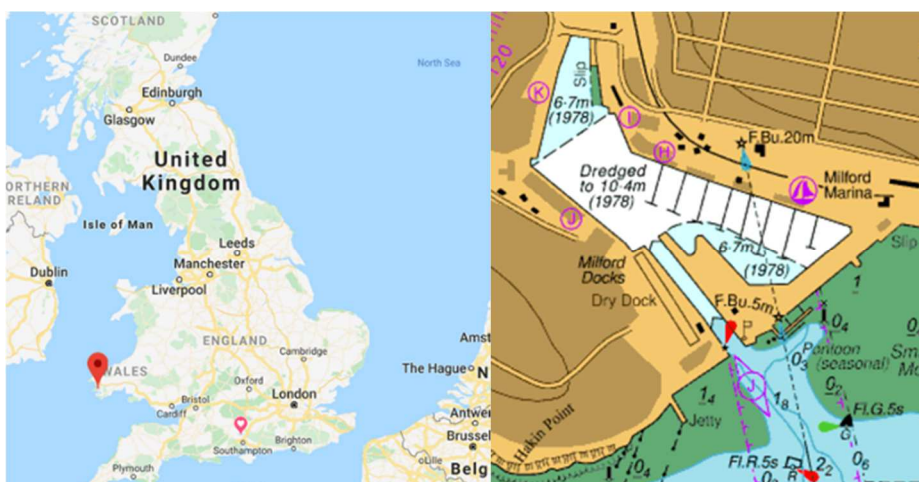


Figure 1 - Port of Milford Haven Docks

Milford Docks is located near the centre of Milford Haven. The fv Z.15 – ZILVERMEEUW berthed SB side at the K Wall, as indicated in Figure 2.



Figure 2 - Z.15 ZILVERMEEUW berth

The port entrance is protected by a lock, reducing the interval between high and low water inside the port. As shown in Figure 3, there was a tidal range of approximately 2 metres.

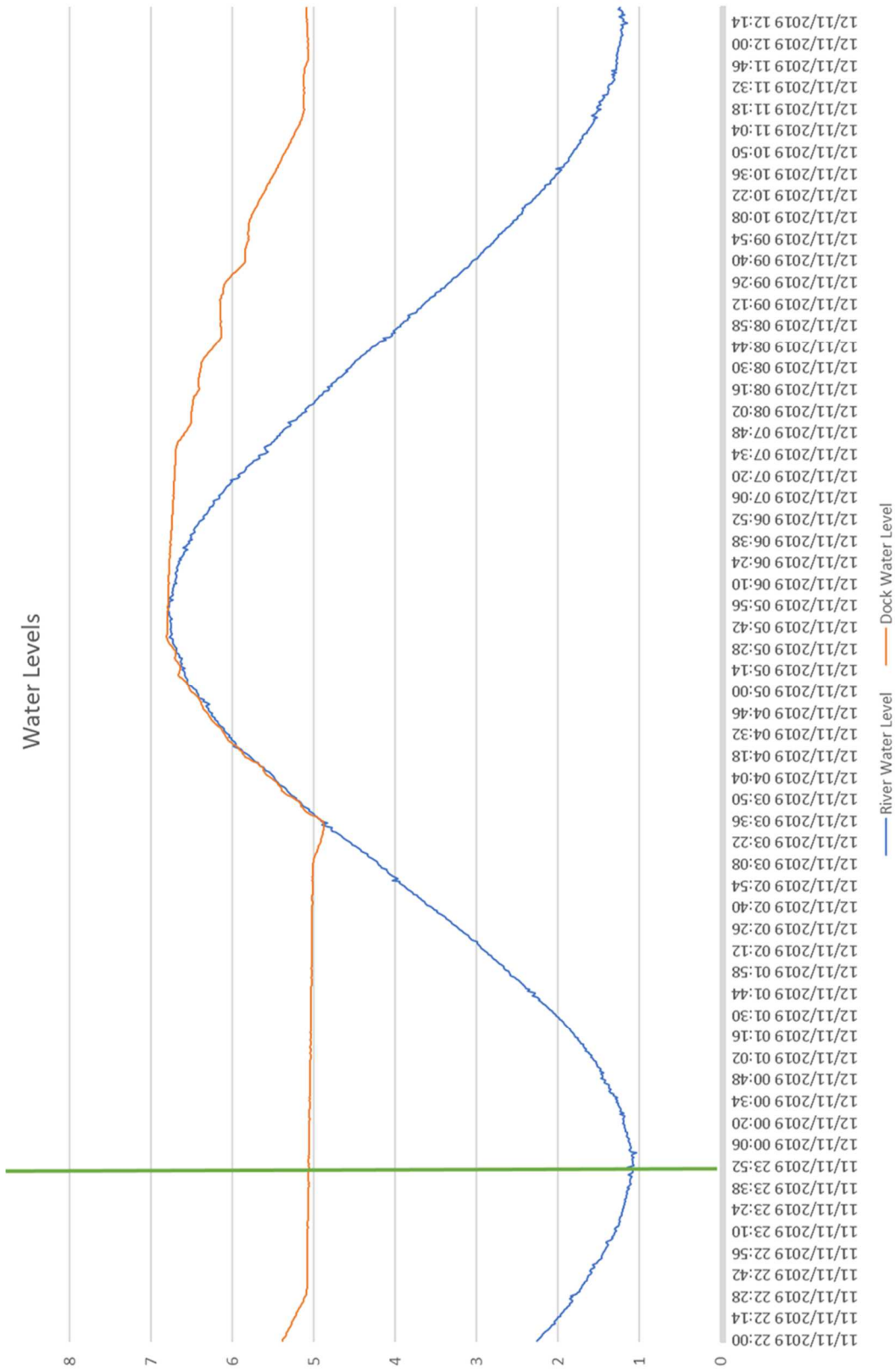


Figure 3 - Water level in Milford Haven

Fv Z.15 – ZILVERMEEUW was berthed inside the docks. The orange line indicates the water level inside the docks. The green line indicates the time the crewmember fell into the water.

The vessel was moored with 2 lines fore and 2 lines aft. All mooring lines were attached to steel bollards on board.

To keep the vessel aligned with the quay, the mooring lines needed to be adjusted by hand time and again. Reportedly, this was only done during daytime when the crew was working on deck. During the nighttime, sufficient slack was kept in the lines so that no adjustments were to be made. This gave the vessel the possibility to drift slightly away from the quay (depending upon the length of the mooring line and the tide).

After arrival of the vessel on November 10th 2019, the crew landed the catch and loaded it into a lorry and continued working till around midnight.

On Monday November 11th 2019, maintenance on board was performed until around 17:00. Around 20:00, five crewmembers went ashore using the quay side ladder and visited a local pub.



Figure 4 – Quay side ladder at the berth of fv Z.15 - ZILVERMEEUW



Figure 5 - Quay side ladder- top view from jetty

After having some beers, the crew returned to the vessel. All crewmembers were back on board around 21:30. They got back on board using the quay side ladder.

Around 22:00 three crewmembers left the vessel again, using the quay side ladder, to visit another pub where they had consumed some alcoholic beverages. One crewmember returned to the vessel at 23:15 and boarded using the quay side ladder.

At 23:49, the other two remaining crewmembers arrived at the vessel. The forecastle was touching the quay, the aft was blown off. The water level had dropped since they boarded the previous time (around 21:30). The forecastle deck was approximately at the same level as the jetty.

Due to the tide and the position of the vessel, the two crewmembers considered that boarding by the forecastle was easier and safer than by the quay side ladder.

The first crewmember went onto the forecastle and climbed over the vessel's guard rail.

The second crewmember boarded via the forecastle immediately thereafter. The first one assisted him to get on board by lending him a hand. Once on board further assistance from the first crewmember was refused. The second crewmember was holding onto one of the wires of the mast when he was on board. He started stepping sideways on the small strip of the deck between the ship's side and the guardrail, subsequently slipped and fell into the water.



Figure 6 – Point of boarding at the forecastle

The crewmember that had fallen into the water tried to swim towards the quay side ladder while the crewmember remaining on board rushed to the mess room and alarmed the other crewmembers.

The crewmember that arrived back on board earlier, at 23:15, whom was sitting in the mess room subsequently immediately came onto the deck. He found the victim face down in the water, appearing unconscious. He descended into the water via the quay side ladder and grabbed the victim by the clothing in order to pull him towards the quay side ladder thereby keeping the victim's head above the water.

In the meantime the other crewmembers arrived on deck. They wanted to pull the victim out of the water.

They used boat hooks to bring the victim alongside the vessel. The crewmember that rescued the victim in the water climbed back on board.

It was not possible to pull the unconscious victim on board by hand.

Meanwhile, at 00:07, the emergency services were called by phone, using emergency number 112, which worked well.

The crew decided to use the winch wire to lift the victim out of the water. The crewmember who had already been in the water jumped back into it to fit a strop under the victim's arms and subsequently returned back on board by using the quay side ladder.

At 00:15 the victim was lifted on deck and CPR was commenced.

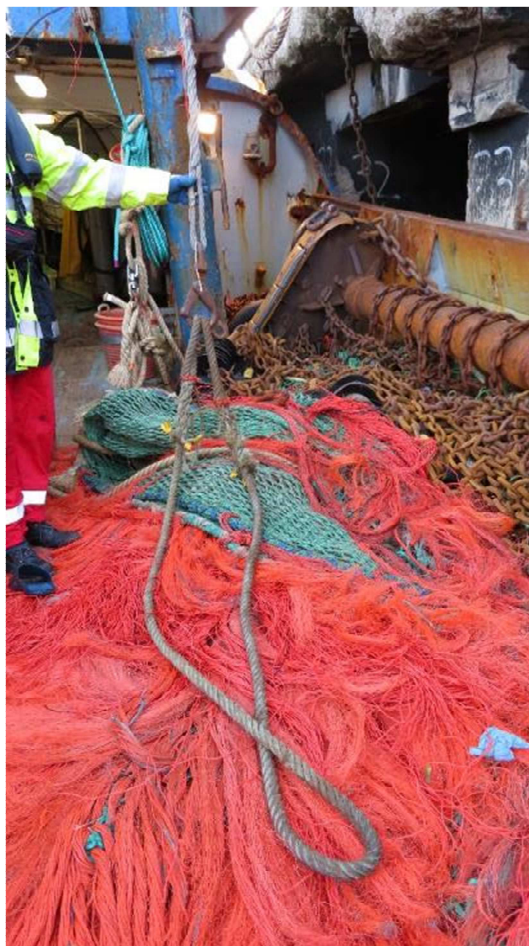


Figure 7 - Strop used to lift the victim out of the water

The defibrillator (AED) was taken from the bridge onto deck. Reportedly the crew had some difficulties attaching the electrode pad due to the stress and panic this emergency situation caused. When attaching the first pad to the victim's chest, the AED gave a signal that there was no contact. At the moment they were changing the pad, a Docks and Marina operative who had arrived took over the vessel AED machine and used it correctly. This was at 00:27.

Manual CPR was given all the time.

At 00:28, the emergency services arrived. The victim needed to be transferred from the vessel by means of a launch.

The victim was transferred into the launch at 00:57. At 01:02, the victim was transferred from the launch into the ambulance. The ambulance arrived at the hospital at 01:19, where it was confirmed that the victim was deceased. The cause of death was later confirmed to be drowning.

3 Factual information

3.1 Vessel's details



Figure 8 – Z.15 – ZILVERMEEUW

Type: Fishing vessel (Beam trawler)

Flag: Belgium

Port of registry: Zeebrugge

Call Sign : OPAO

IMO N°: 7936777

Shipyard : NV Westvlaamse Scheepswerf
/ SV Scap

Year of build : 1975

Current owner: BVBA rederij Devan

LOA: 34.8m

Lbpp: 31.03m

Beam (over all): 7.68m

Gross tonnage: 236

Net tonnage: 70

Engine power: 883 kW

Engine type: ABC

Hull: Steel

3.2 Autopsy report

The postmortem examination report identified the cause of death as drowning.

The toxicology examination showed that the crewmember's blood alcohol concentration was 269 milligrams per 100 millilitres.

The autopsy report stated that such a concentration was sufficient to impair cognitive behaviour and motor function.

3.3 Environmental conditions

The night of 11th November 2019 was a quite cool night with a temperature of 7°C. There was a 4-5 bft WNW wind.

The water inside Milford docks was calm and the water temperature in Milford haven (outside Milford Docks) was 13°C.

4 Analyses

4.1 Access to the moored vessel

Fv Z.15 – ZILVERMEEUW was berthed at the K Wall at Milford docks. There was a tidal range of approximately 2 metres.

The vessel was not equipped with a gangway or other means of access. No custom made means of access that could be used in conjunction with a tidal range were available on board.

According to the crew, the use of a gangway was not possible due to the design of the ship and the tidal range.

According to the port, vessels of a similar size moor on K wall and successfully position their gangway between the vessel and the quay.

The quays were fitted with fixed ladders. The ladder giving access to fv Z.15- ZILVERMEEUW was positioned amidships of the vessel when moored properly.

The crew mainly used this ladder to board/leave the vessel.

The ladder was not always easily accessible:

- Fishing gear obstructed easy access, as well as from the jetty (chains) as from deck (see
- Figure 9, Figure 10 and
- Figure 11).
- The distance to the ladder increased when the mooring lines were slack, a rope attached to the ladder could (partly) prevent this (see
- Figure 11).



Figure 9 - Chains of fishing gear obstructing quay side ladder (1)



Figure 10 - Chains of fishing gear obstructing quay side ladder (2)

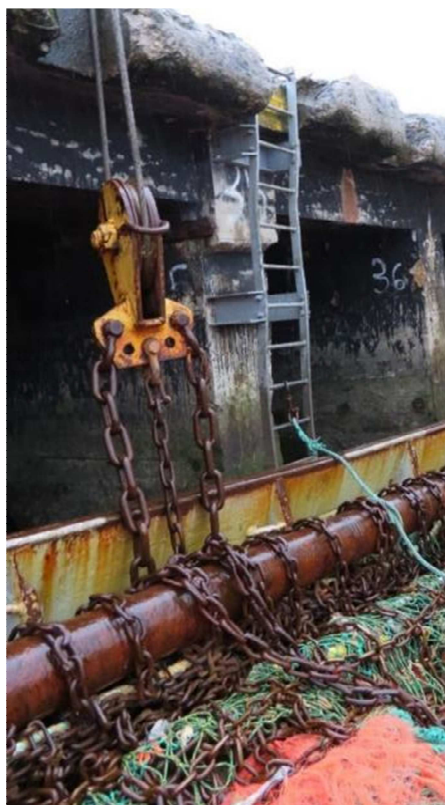


Figure 11 - View from vessel to quay side ladder

The rope had been attached to the quay side ladder after the accident

Even in ideal conditions, the quay side ladder was awkward to climb, and its design did not encourage use:

- No handles were in place at the jetty to get on the ladder. One had to crawl on his or knees to get one's feet and hands on the supports, see Figure 12. This design allowed hand grip when climbing up the ladder and also allowed mooring ropes to pass over without catching hold of any part of the ladder.

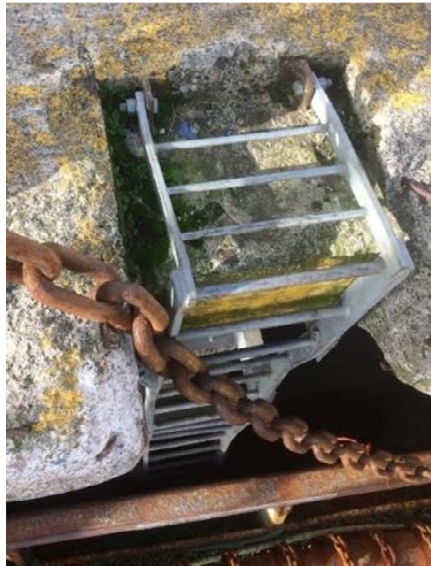


Figure 12 - Quay side ladder - no handles on top

- At the top of the ladder, there was limited space between the supports and the concrete of the jetty. Only the tip of a shoe could rest on the rungs of the ladder, see



Figure 13 - Quay side ladder detail - Distance between concrete and supports

- Figure 13.

At the lowest tide in Milford Docks, the jetty and forecastle of fv Z.15-ZILVERMEEUW were approximately on even level. Getting on board by the forecastle was an alternative for the use of the quay side ladder, but some obstacles had to be taken into account:

- The ship's side curved inwards at the forecastle. There was some obstruction by wires and a blue post. Only when the vessel's head touched the quay under a certain angle,

was it possible to step on board in front of the blue post, on the small strip of the deck outside of the guardrails.



Figure 14 - Shape of the forecastle

- Once on board, one could stand on a small strip of deck, but it was still required to climb over the guardrail
- From the forecastle, a small ladder gave access to the deck below. This passage was obstructed by fishing gear

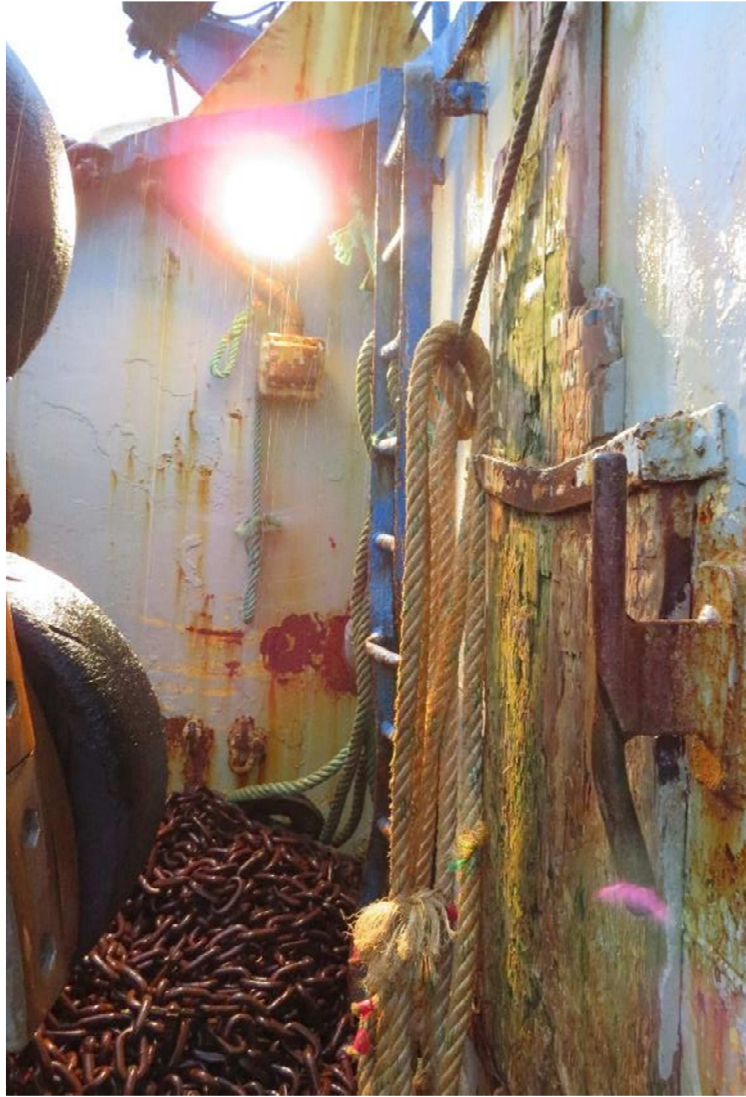


Figure 15 - Access ladder to forecastle

Generally, it could be concluded that the access to the vessel had not been properly assessed by the crew. No mitigating measures had been taken to make access to the vessel as safe as possible within the given conditions. The nearest lifebuoys were located at the wheelhouse.

Safety instruction cards, as part of the safety handbook for the fishing industry, issued by PREVIS/ZVF/LIANTIS (formerly PROVIKMO), were available on board (in Dutch, see appendices).

Safety instruction card A102 (dated 01/08/2010) described the dangers involving boarding/leaving a fishing vessel and stated that a pilot project regarding boarding/leaving a fishing vessel was ongoing. The project was stopped without an available outcome.

4.2 Recovery of a man overboard

A MOB procedure was available on board. The procedure had never been trained on board. During safety training ashore, MOB situations had been trained, but not on the vessel itself. All crew was in possession of at least a basic safety certificate.

The Fv Z.15- ZILVERMEEUW had no additional equipment on board to respond to a MOB situation, such as a MOB cradle.

The accident indicated that taking an unconscious victim on board by hand was almost impossible.

Safety instruction card R&B321 (dated 01/08/2010) stated that a ship specific MOB procedure was available on board. The ship specific procedure contained information regarding a MOB situation at sea, where a victim could be picked up by use of the fishing gear.

Safety instruction card R&B314 (dated 16/06/2011) explained the possibilities for recovering a man overboard. The Jason Cradle and Marcus Life Net were mentioned in the instruction, but such devices were not on board. The instruction also explained the possibility to use the fishing gear (chain net) to recover a MOB.

The possibilities to recover a MOB as described into the safety instruction could not be used in this situation where a man had fallen between the vessel and the jetty.

Usage of the quay side ladder would have been a possibility, however only if the victim was conscious and physically able to climb the ladder after the fall overboard.

The crew decided to use a strop together with the winch wire. This method had not been described in the instructions, however was successful in this case, although improvements could be done.

If a vessel was equipped with a Jason Cradle or a Marcus Life Net, the use of this cradle/net was subject to a yearly inspection by the Flag State. Testing of MOB procedures on board vessels not equipped with such net/cradle is not subject to the inspection.

The employment agreement between fishermen and company mentioned the owner as the safety advisor, responsible for the rollout and implementation of the safety policy on board.

4.3 Use of AED equipment

The vessel was equipped with an AED.

Safety instruction card R&B301 (dated 27/09/2011) explained that every fishing vessel supported by PREVIS had been equipped with an AED. Every 2-3 years, training was organised.

When using the AED, the stress and panic made it difficult to attach the electrode pad. To attach the pad, the wrapping foil needed to be opened and a plastic backing film needed to be removed. The victim's chest needed to be dry.

Probably a lack of experience, stress and panic were the cause that the first pad was not successfully attached to the victim's chest.

After replacing the pad by another one, it stuck well to the victim's chest. At that moment a Docks and Marina operative arrived and used the AED machine correctly. The emergency services arrived soon afterwards and started using their own equipment, so the on board AED was no longer needed.

4.4 Alcohol policy on board and in port

Safety instruction card A124 (dated 01/08/2010) was on board and concerned the (mis)use of alcohol and drugs. The instruction card did not mention any rules or restrictions and referred to the owner of the vessel as the safety advisor to implement a policy concerning the use of alcohol and drugs.

The agreement between both employers (shipowners) and employees organisations (fishermen) regarding a preventive policy concerning the use of alcohol and drugs was laid down in a Royal Decree¹ with the vision to develop a preventive policy plan including a.o. guidelines, procedures, information, education and an assistance framework.

The policy is valid from the moment the fisherman leaves his home until he arrives back home again.

¹ 5 September 2018- Koninklijk Besluit waarbij algemeen verbindend wordt verklaard de collectieve arbeidsovereenkomst van 3 mei 2018, gesloten in het Paritair Comité voor de zeevisserij, betreffende de uitvoering van de collectieve arbeidsovereenkomst nr.100 van 1 april 2009, gesloten in de Nationale Arbeidsraad, betreffende het voeren van een preventief alcohol- en drugsbeleid in de ondernemingen die vallen onder de sector zeevisserij.

The policy included step-by-step plans about actions to be taken by chronic and acute abuse of drugs/alcohol, commencing with the spotting of disfunctional behaviour by the skipper. No information regarding this agreement and/or policy was available on board.

Other Belgian law about the use/carriage of alcohol and drugs on board includes:

- an alcohol limit of 0.05% when on duty;
- the prohibition for all fishermen to bring alcohol and drugs on board (as stated in detail in the labour contract and into the law of May 3rd 2003).

Despite the policies, the on board instruction cards and applicable legislation, daily consumption of alcohol (distilled liqueurs) was still accepted on board and no limits about the usage of alcohol when alongside were set on board.

4.5 Cause of drowning

Immersion in cold water (water under 15°C) can lead to death in one of the following three ways:

1. *Cold shock response*

On immersion in cold water the sudden lowering of skin temperature causes a rapid rise in heart rate, and therefore blood pressure, accompanied by a gasp reflex followed by uncontrollable rapid breathing. The onset of cold shock occurs immediately, peaking within 30 seconds and lasts for 2-3 minutes. If the head goes underwater during this stage, the inability to hold breath will often lead to water entering the lungs in quantities sufficient to cause death. Cold shock response is considered to be the cause of the majority of drowning deaths in UK waters.

2. *Cold incapacitation*

Cold incapacitation usually occurs within 2-15 minutes of entering cold water. The blood vessels are constricted as the body tries to preserve heat and protect the vital organs. This results in the blood flow to the extremities being restricted, causing cooling and consequent deterioration in the functioning of muscles and nerve ends. Useful movement is lost in hands and feet, progressively leading to the incapacitation of arms and legs. Unless a lifejacket is worn, death by drowning occurs as a result of impaired swimming.

3. *Hypothermia*

Hypothermia onset occurs when the human body's core temperature drops below 35°C (it is normally about 37°C). Depending on circumstances, this can occur after 30

minutes. The body's core temperature can continue to drop even after the casualty has been recovered from the water if the re-warming efforts are not effective.

The water temperature was only 13°C. Shortly after falling into the water, the victim was reported unconscious. The autopsy report did not reveal any head injuries. Despite his warm clothing, the victim almost certainly suffered a cold shock response.

5 Cause of the accident

The absence of a safe access point to the vessel caused the fall into the water. Boarding at the forecastle was considered safer/more comfortable than boarding by the quay side ladder at low tide and considering the distance between jetty and vessel.

The amount of alcohol consumed by the victim adversely affected his performance (risk perception, reaction time, co-ordination) and so contributed to the accident.

As the water temperature was low and no floating safety devices were available, the victim could not reach the quay side ladder before he lost consciousness due to hypothermia. CPR was only administered when casualty recovered on board, and could have started earlier if and when the emergency preparedness and response time on board were better.

6 Conclusion

6.1 Safety Issues

No or little efforts had been made to make the access to the vessel as safe as practically possible. Different access points were used depending on the tide and the distance between the vessel and the jetty. These access points could not be considered safe as access was hindered by chains, guardrails and fishing gear.

The quay side ladder was used as access point to the vessel, as the vessel had no means of access available. This ladder was not considered user friendly and awkward to use. No handles were in place at the top of the ladder. Crawling on your knees was necessary to get on the ladder.

The safety instruction cards on board described that a pilot project concerning safe access was running in 2010, but no outcome was made available. No results improving safe access to the vessel were visible on board. The card did not mention practical guidelines to assess/improve the access to the vessel.

Emergency procedures in case of a MOB were described in the safety instruction cards on board. The effective implementation of these procedures on board were never tested. The victim was lifted out of the water by means of a strop connected to the winch wire. Effective, but not comfortable.

Both the access to the vessel as the emergency response indicate that there is a higher need for vessel specific safety assessment, training and follow-up of implementation of procedures and instructions. No ship specific risk assessment was in place.

The consumption of alcohol when off-duty in port is a common phenomenon, but the tragic consequences of this accident demonstrate that drinking to excess significantly worsen the risk of life for crew that live on board ships when in port.

6.2 Actions Taken

The Port of Milford Haven:

1. Conducted a thorough review of safety, access ladders, services and fendering within the docks. As part of this process the port consulted industry organisations (British Ports Association, Seafish and Customers) as well as other UK fishing ports in order to determine best practice. This review has led to the following changes:
 - Commenced repair/replacement of the quay ladders within the port, which will include the addition of 'over the top' hand holds at the top of the ladder to allow the user to safely step from the quay side on to the ladder
 - New ladder for K4 (Zilvermeeuw berth on the night of the accident) and recessed off the Quay Wall
 - Minor maintenance works completed on current hand rails on J Wall & K Wall.
 - Signed off on design for a fixed handrail on K Wall and J Wall for ease of access – as per Newlyn Docks, see Figure 16.



Figure 16 - Handrail design for K Wall and J Wall

- Heavy duty fendering will be fitted on all ladders along K Wall.
- Additional emergency ladder will be fitted on K Wall (K5).

- All grab holds (fixed between the emergency ladders on the quay) replaced on J Wall.
2. Increased the number of quayside lifesaving appliances. As part of the Health, Safety and Welfare funding of the European Maritime and Fisheries Fund, the following changes will see the provision of:
- lifebuoys every 25m rather than 50m;
 - fire extinguishers sited on the berth; and,
 - a quayside defibrillator for use in an emergency.
 - 4 x Portable Embankment Ladders.
 - Marine Crane located on J Wall (in situ, but requires commissioning).
3. Will issue a revised leaflet issued to all fishing vessels on arrival, see appendix 8.2. This colour leaflet details the position of the various berths within the port, the telephone numbers to call in case of an emergency.
- Revised A4 Arrival Form (see appendix 8.2) with location map and safety guidelines incorporated for agents and masters. Operatives meet the vessel on the quay to ensure the Master has a copy of the arrival form.
 - The Pierhead Operator communicates to all vessels entering the lock of the Dock tidal range and advises the Master to adjust mooring lines accordingly.
4. Improved safety signage within the port, see appendix 8.2. A contract has been let to produce improved safety signage for display within the port.
- A0 Signage (Map and Safety Guidelines) will be erected on J Wall, K Wall and in the Lock Barrel (Milford Haven Port Authority Marketing department have submitted planning permission for the signage).
5. Will issue a crew member health and safety card, see appendix 8.2. The provision of small plasticised cards to crew members highlighting safe practices to be followed within the port.
- A5 Flyer printed in cellophane attached plastic and given to all crew members at Milford Fishing Docks.

7 Recommendations

The owner of the vessel , BVBA rederij DEVAN is recommended to:

1. Assess the vessel's operational safety risks and to take appropriate action. Such actions may include, but do not have to be limited to: vessel specific instructions concerning safe access and vessel specific training regarding emergency procedures.

PREVIS is recommended to:

2. Further develop and roll-out the action plan regarding alcohol and drug consumption, up to a level where the information is available on board and understood by the crew.
3. Develop a vessel safety management system for all Belgian fishing vessels together with other parties involved.

8 Appendices

Appendix 1 Safety Instruction cards

PREVIS
Preventie van arbeidsongevallen aan boord van Visserij schepen



KAARTNUMMER A 102	Veilig VAN en AAN boord stappen.	datum 01/08/2010
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Het van en aan boord stappen is één van de belangrijkste oorzaken van arbeidsongevallen in de visserij (5 % of 1 op 20).

Wanneer je niet achter een sluis ligt (zoals in Zeebrugge of in Oostende) kan je afwisselend een groot of een klein verval hebben naargelang het HW of het LW is. Alhoewel de situatie in Zeebrugge ideaal is, gebeuren er ook daar nog ongevallen. Bij het aan boord stappen (vaak SPRINGEN) is de zijde van het schip dikwijls glad. Bij het dan verder op dek springen van op de zijde, beland je vaak tussen de kettingmatten (steennetten), korren en andere materialen die daar liggen. Hierbij kan je je voet omslaan of enkel breken.

In een vreemde haven met een verval van 6 à 7 meter, klauteren de vissers in het steennet of langs de borgen omhoog of omlaag om van boord te geraken. Ook als het schip afdrijft durven de vissers al eens een sprong wagen om aan boord te geraken. 's Nachts, terwijl iedereen slaapt, en zeker in een toestand van onvolledige concentratie, is het risico groot om bij een verkeerde sprong tussen wal en schip te vallen, met mogelijks gevaar voor verdrinking.

Previs is met een proefproject gestart om het van en aan boord stappen veiliger te maken. Dit door een ladder te plaatsen gecombineerd met enkele andere aanpassingen of gangway.

DENK AAN JE VEILIGHEID.

- Kom 's nachts, indien mogelijk, niet alleen aan boord.
- Als je niet zeker bent, waag dan zeker geen sprong aan boord.
- Pas ook op bij het aan of van boord stappen voor de natte, ijzel of visslijm op de zijde (reling).



Traptreden geplaatst binnen boord.



Laddersysteem te gebruiken bij een groot verval.



Voor meer informatie: Previs +32 59 50 95 55 previs@zeevissersfonds.be ©

A 102

KAARTNUMMER
A 124

Middelengebruik.

01-08-2010

Alcohol- en druggebruik zijn een hedendaags maatschappelijk probleem, waaraan ook de visserij niet ontsnapt. Mede door het bemanningstekort is het zeker niet eenvoudig om aan preventie en hulpverlening te doen. Zware arbeid onder soms moeilijke omstandigheden, met daarbij een tekort aan slaap zijn eigen aan de visserij. Drank of drugs worden soms als middelen beschouwd om hieraan te ontsnappen, maar richten altijd veel schade aan.

De Provincie West-Vlaanderen en verschillende werkgroepen uit de visserijsector hebben hiervoor samengewerkt. Een duidelijke handleiding werd ter beschikking gesteld voor reders en bemanning. Ieder schip werd voorzien van folders en informatie over alcohol- en drugsbeleid in de visserij. De verantwoordelijkheid van de reder als veiligheidsadviseur van het schip, en de schipper - enerzijds als mandataris van de reder en anderzijds als de wettelijke gezagvoerder aan boord - staan hierin centraal.

Onder de gebruikers zitten zeer goede werkers, die echter op termijn, door toenemend middelengebruik, voor de visserij verloren dreigen te gaan. Iedereen moet helpen om betrokkenen van hun verslaving af te geraken.

Het is noodzakelijk dat de aanpak tegen middelengebruik door alle betrokkenen aan boord gedragen wordt. De doelstelling in deze globale aanpak is niet om deze personen te straffen, maar wel om ze te helpen van hun verslaving af te geraken zodat ze hun beroep verder in alle veiligheid kunnen uitoefenen.

DENK AAN JE VEILIGHEID.

- Bij het lopen van de wacht, denk aan jouw verantwoordelijkheid op de brug: er kunnen heel gevaarlijke situaties ontstaan.
- Ook aan dek: je brengt niet alleen jezelf in gevaar, maar ook je werkmakers.
- Laat je helpen.



Hou het veilig en blijf nuchter.



De medewerkers aan de actie.



De slogan voor de visserij.

KAARTNUMMER R&B301	Gebruik maken van een AED-toestel bij hartfalen op zee.	datum 27/09/2011
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Vissersvaartuigen die op zee vertoeven zijn vaak ver van de wal verwijderd. Daarom zijn bemanningsleden altijd op zichzelf aangewezen om eerste hulp (EHBO) toe te passen bij arbeidsongevallen en hartfalen.



Om bij hartfalen de vissers die zich op zee bevinden een kans te geven zich te behelpen, heeft het Zeevissersfonds - Previs voor ieder schip gratis een AED-toestel (Automated External Defibrillator) voorzien. Dit toestel wordt aan boord van ieder schip geplaatst, een deskundige geeft vooraf een degelijke opleiding. Deze opleiding zal op regelmatige basis (twee à drie jaar) worden herhaald.

DENK AAN JE VEILIGHEID.

- Wanneer een persoon onwel wordt op dek, in de machinekamer of een op andere plaats aan boord, dan onmiddellijk checken wat er aan de hand is!
- Is de persoon bewusteloos?
- Ademt de persoon nog zelfstandig? (zie de richtlijnen daarvoor in de opleiding).
- Indien er gereanimeerd moet worden, **onmiddellijk** beginnen. Hoe **vlugger** de reanimatie begint, hoe **groter** de **overlevingskansen** van de patiënt (de verhouding is 30-2, zie bijlage).
- Als de betrokken persoon op dek in het water ligt, dan zo snel mogelijk de betrokkene op een droge plaats leggen.
- Werkt gezamenlijk en snel. Steekt voordien een scenario in elkaar. Twee bemanningsleden beginnen te reanimeren, één bemanningslid gaat onmiddellijk het AED-toestel halen, terwijl de schipper de hulpdiensten verwittigt.
- De kleren van betrokkene worden onmiddellijk **opengesneden** (degelijk mes of schaar) zodat de borstkas vrijkomt. Probeer zeker niet de persoon zelf te ontkleden, daarbij gaat **teveel kostbare tijd** verloren.

- Terwijl de reanimatie doorgaat, zal een bemanningslid vlug de defibrillator halen. Deze heeft altijd een **vaste plaats** op het schip (zie aangebracht sticker). De ganse bemanning moet hiervan op de hoogte zijn.
- De defibrillator wordt aangekoppeld aan de patiënt en in gebruik genomen (zie opleiding aan boord en gebruiksinstructies).
- De reanimatie blijft doorgaan in combinatie met de defibrillator.
- Volgt daarom **strikt de richtlijnen** die de defibrillator op het scherm doorgeeft.
- Bij enig teken van leven **de defibrillator gekoppeld laten** aan de patiënt.
- De patiënt **niet verplaatsen**, en wachten op medische bijstand.
- **Altijd blijven doorgaan met de reanimatie tot er medische hulp komt. Die hulp kan vaak lang op zich wachten, dit afhankelijk van de plaats waar het schip zich bevindt.**



Oefening bij de opleiding van een AED-toestel door de bemanning van de Z 121 DEBORAH.

Toestel toont en zegt perfect wat u moet doen.

Voor meer informatie: Previs +32 59 50 95





Automatische Externe Defibrillator
**ALGEMEEN GEBRUIK
 BIJ NOODGEVALLEN**
 KB van 21 april 2007

Wat zegt de wet?



Wet van 12 juni 2008, Art. 2 :
 "Iedereen heeft het recht een automatische externe defibrillator te gebruiken in het kader van een noodsituatie
 zoals bepaald door het koninklijk besluit."
 Koninklijk Besluit van 21 april 2007, Art. 5 :
 "Een AED categorie 1 mag bediend worden door zowel professionele als niet-professionele gebruikers (...)"
HET GEBRUIK VAN EEN AED KAN U NIET WORDEN VERWETEN

TOESTEL MET STEMBEGELEIDING

Gebruiksaanwijzing

- 1 **OK?**
 Slangen bewustzijn
- 2
 Geen adempaling
 Geen polsslag
- 3
 Veruittij de hulpdiensten
- 4 **30x + 2x**

 CPR : Cardio Pulmonaire Resuscitatie
- 5
 Plaatsing van de AED
- 6
 Elektrische schok met AED

Onafbreken de CPR bij normale adempaling. Zwaai slaap 400 voor verhalen het aanteken van de hulpdiensten. >> 1

In samenwerking met:



<http://www.seton.be>



Voor meer informatie: Previs +32 59 50 95 55 previs@zeevissersfonds.be

R&B 301

3/3

KAARTNUMMER
R&B 314**Een drenkeling terug aan boord halen.****Datum opmaak**
16/06/2011

Wanneer een bemanningslid overboord valt, hoe kunnen we die persoon dan terug aan boord van het schip krijgen?

Indien deze situatie zich voordoet, is het noodzakelijk om de persoon zo snel mogelijk terug uit het zeewater te halen, want er bestaat een gevaar voor onderkoeling. Als betrokkene al een tijdje in het zeewater ligt, is het goed mogelijk dat hij door de koude niet meer in staat is om zelf aan zijn redding mee te helpen. Alle bemanningsleden moeten helpen om het slachtoffer zo snel mogelijk terug aan boord te krijgen. Het vraagt heel wat inspanning om de drenkeling, die niet meer kan meewerken, aan boord van het schip te brengen aangezien de zijde van een schip zeer hoog is.

Wanneer je met het schip naar een drenkeling manoeuvreert, kan betrokkene, als hij zich nog sterk genoeg voelt, in de kettingmat klauteren en met behulp van een ander bemanningslid aan boord worden gebracht. De schipper kan dan voorzichtig de giek toppen tot iedereen van de kettingmat terug aan boord kan stappen. De kettingmat dient zagezegd als klimrek.

Een tweede mogelijkheid is dat één van de bemanningsleden aan de buitenkant van de zijde staat op het stukje dek dat vrijkomt wanneer de loespoort geopend is. Van daaruit kan hij met één hand proberen de vialiehaak (jumper) in de reddingsvest van de drenkeling te haken, terwijl hij met zijn ander hand de zijde vasthoudt. Heeft hij zijn twee handen nodig om de drenkeling te helpen, dan moeten de overige bemanningsleden de redder beveiligen met een lijn en vasthouden tot de drenkeling uit het water is geholpen. Het is noodzakelijk dat de drenkeling zijn automatisch opblaasbare reddingsvest aanheeft, inclusief de kruisriem, zodat bij het inhaken van de lenter (jumper) de reddingsvest niet over het hoofd schuift. Van zodra de persoon uit het water wordt gehaald, moet hij direct ondersteund worden en geholpen worden om op het dek neer te liggen. Doordat de drenkeling werd opgehaald met de lenter is het nodig de reddingsgordel los te maken, want deze kan gekneld zitten.

Dit zijn moeilijke en soms gevaarlijke handelingen die ook de veiligheid van de redders in gevaar kunnen brengen.

Het is daarom aangewezen om bestaande middelen te gebruiken die speciaal gemaakt zijn om drenkelingen uit het water te halen, bijvoorbeeld de Jason Cradle of de Marcus Life Nets. Het eerste is een aangepaste klimrek voor buitenboord, en het tweede systeem is een systeem dat gegooid wordt naar de drenkeling en waarin hij kan plaatsnemen. Enkele middelen zijn toegelicht op de foto's.

DENK AAN JE VEILIGHEID!

- Steeds rekening houden met het feit dat het niet altijd eenvoudig is om met een schip langsij de drenkeling te manoeuvreren.
- Altijd oppassen voor de schroefwerking en de zuigkracht van de straalbuis.
- MOB-training invoeren, dit is om aan te voelen dat het niet gemakkelijk is om een zwaar log voorwerp terug aan boord te krijgen.
- Met een MOB-alarm aan boord kan je redding nog sneller verlopen.
- **Tijdens de werkzaamheden aan dek altijd je automatisch opblaasbare reddingsvest dragen.**
- **De drenkeling dient zich in het water stil te houden, hij neemt de "help" houding aan en wacht op redding (zie kaart R&B 321).**
- Bij onderkoeling zie kaart A 123 voor medische hulp.
- Wanneer bij nacht of mistig weer iemand over boord slaat, en je beschikt niet over een MOB-alarm, dan onmiddellijk de Kustwacht waarschuwen om een zoektocht te organiseren.



Goede reddingmethodes om de drenkeling uit het water te halen.

KAARTNUMMER

R&B 321

Man-over-boord.

01-08-2010

Een man-over boord-situatie is een ongewenst gebeuren dat regelmatig voorvalt in de visserij. Zoals reeds vermeld in kaart R&B 311, zijn er in 40 jaar tijd (tussen 1960 - 2000) ± 50 vissers gestorven of vermist na overboord te zijn gevallen.

Voor een uiteindelijke goede afloop van een dergelijk incident hangt veel af enerzijds van de drenkeling zelf en anderzijds van de snelle en correcte tussenkomst van de andere bemanningsleden.

DE DRENKELING ZELF: draagt hij de opblaasbare reddingsgordel (met MOB-zender), of een ander drijvend hulpmiddel - neemt hij de H.E.L.P.-positie aan, hierdoor kan hij zijn overlevingstijd in het water aanzienlijk verlengen.

AAN BOORD: Zo snel mogelijk de brug verwittigen en een boei werpen. Nu positie vastleggen, koers veranderen en naar de MOB-positie varen. Een goede uitkijk houden en maatregelen nemen om drenkeling(en) aan boord te kunnen nemen. De Kustwacht en nabije scheepvaart verwittigen. **Let op:** als je de nageworpen boei terugvindt zonder de drenkeling, laat deze boei dan drijven, zodat je tijdens de verdere zoekactie een referentiepunt hebt. Bovendien drijft de boei af op dezelfde manier (richting en snelheid) als de drenkeling.

PREVIS bezorgt alle vaartuigen een specifieke Veiligheidskaart "Man Over Boord" (in 2 exemplaren) om te afficheren op de brug en in het kombuis.

DENK AAN JE VEILIGHEID.

- Ken de richtlijnen voor het verlaten van het schip (zie verso "Man over Boord").
- Draag de opblaasbare reddingsgordel (met MOB-zender).
- Ken de H.E.L.P.-positie - zie hieronder de tekeningen.



MAN OVER BOORD

1. en 2.

DICHTSTE BOEI NAGOOIEN & BRUG VERWITTIGEN

Indien de boei niet voorzien is van licht- en rooksignaal, gooi dan nadien nog een boei met licht- en rooksignaal uit.

3. BRUG

POSITIE VASTLEGGEN: MOB-functie op GPS en/of ECDISC

MOB-boei (met rook- & lichtsignaal) nagooien

UITKIJK: Probeer drenkeling in het oog te houden

MANOEUVREER naar de MOB-POSITIE en tot bij de BOEI.

Als drenkeling niet bij de boei is: **BOEI LATEN DRIJVEN.**

De boei wordt het referentie punt voor verdere zoekactie.

VERWITTIG KUSTWACHT & NABIJE SCHEEPVAART:

zendt "Pan Pan" bericht uit via VHF Kan 16 en met DSC op de VHF en MF.

4. DEK

Klaarmaken om drenkeling op te pikken:

Netten over boord hangen: welke zijde, afspreken schipper

Thermisch deken klaar leggen in accommodatie

5. HET NADEREN

Nader de drenkeling vanuit de BOVENWINDSE KANT, zodat de drenkeling in kalm water in een positie aan de lijzijde opgepikt kan worden.

Ga in geen geval achteruit naar de persoon toe: de drenkeling kan naar de schroef toe gezogen worden.

6. HET OPPIKKEN

Probeer drenkeling met zijn rug naar u toe uit het water te halen

Is hij duidelijk ONDERKOELD: liefst HORIZONTAAL uit water halen.

7. VERZORGING DRENKELING

Wees bij iedere drenkeling attent op mogelijke onderkoeling, ook wanneer deze geen duidelijke symptomen vertoont. Zie cursus E.H.B.O.

Appendix 2 Actions Taken by the Port of Milford Haven

A5 Flyer – page 1



Safety Information and Guidance

Beware of	Always
<ul style="list-style-type: none"> • Unprotected dock quayside edges - you must wear lifejackets if you are within 1 metre of the edge • Deep and cold water • Moving vehicles and heavy plant on quaysides • Moving vessels within the dock basin • Mooring lines, wires and other obstructions • Tidal range - call Pier Head on VHF Ch.14 to confirm the water level range and adjust mooring lines accordingly 	<ul style="list-style-type: none"> • Use a gangway or ship's ladder to embark and safely disembark vessels • Keep away from operational areas unless working in them • Keep within designated walkways and traffic lanes • Keep to below the speed limit of 10mph on the quayside • Remain behind barriers where they are provided • Take on board advice from Port staff and obey their instructions • Report all incidents or anti-social behaviour to the Marina Office • Report all spillages, on the quayside or in the water, to the Marina Office immediately • Wear appropriate Personal Protective and Safety equipment
Don't	Emergency Equipment
<ul style="list-style-type: none"> • Swimming, jumping and diving is not permitted from Port property • Fishing is not permitted within the Docks and Marina • Embark or disembark when under the influence of alcohol or drugs • Climb on structures or enter vacant buildings and land • Discharge bilge pumps while berthed at the Docks and Marina • Fuel vessel by bowser or IBC tank within the Docks or Lock 	<ul style="list-style-type: none"> • Life belts are located every 50m on quay walls for emergency use only • Quayside ladders are located every 50m and are for emergency use only • First Aid boxes and defibrillators are located at the Marina Office and at Pier Head • A long reach rescue pole is located at Pier Head • Fire extinguishers and manual fire alarms are located along J Wall and K Wall
<p>Contact details: ☎ +44(0)1646 698312 📻 +44(0)7970 029466 VHF Ch.14 In the event of an emergency, dial 999!</p>	

Fishing Vessel Information Notification of Arrival

MILFORD FISH DOCKS

Wales' largest fishing port

Please email completed form to or deliver to the Marina Office on arrival
call +44(0)1646 696312 if you have any queries

Vessel Name:		Registered Number:		Permit Number:	
Skipper's Name:		English Speaking:		Vessel Owner:	
LOA:	Beam:	Draft:	GRT:		
Arrival details:		Date:		Time:	
Departure details:		Date:		Time:	
Fish landed:	<input type="checkbox"/>	Quantity:			
Fuel:	<input type="checkbox"/>	Quantity:		Supplier:	
Requirements					
Water:	<input type="checkbox"/>	Time required:			
Electricity (if available):	<input type="checkbox"/>	Units:			
Crane:	<input type="checkbox"/>	Purpose:		Time required:	
PLT/Loadall:	<input type="checkbox"/>	Purpose:		Time required:	
Flake Ice:	<input type="checkbox"/>	Quantity:		Time required:	
Boxes:	<input type="checkbox"/>	Quantity:	Type:	Time required:	
Waste Oil Disposal:	<input type="checkbox"/>	Quantity:			
Deck Waste:	<input type="checkbox"/>	Quantity:			
Additional information/requests:					
Information supplied by: (PRINT NAME)					
(SIGN)				Date	
Invoice details (to be completed by vessels without approved credit terms)					
Contact name:		Company/agent:			
Address:					
Email address:			Phone number:		
Company registration number:			VAT number:		
<input type="checkbox"/> Please tick here to confirm that you have read the short terms and conditions and Safety Information and Guidance on the back of the pink copy of this Notification of Arrival and you and the crew of the vessel will abide by these whilst at Milford Fish Docks. I confirm I have read and understand the terms and conditions and safety information and guidance provided.					
Information supplied by: (PRINT NAME)					
(SIGN)				Date	

Please refer to our website for full terms and conditions

Milford Fish Docks is owned and operated by the Port of Milford Haven

Safety Information and Guidance

Beware of	Always
<ul style="list-style-type: none"> • Unprotected dock quayside edges - you must wear lifejackets if you are within 1 metre of the edge • Deep and cold water • Moving vehicles and heavy plant on quaysides • Moving vessels within the dock basin • Mooring lines, wires and other obstructions • Tidal range - call Pier Head on VHF Ch.14 to confirm the water level range and adjust mooring lines accordingly 	<ul style="list-style-type: none"> • Use a gangway or ship's ladder to embark and safely disembark vessels • Keep away from operational areas unless working in them • Keep within designated walkways and traffic lanes • Keep to below the speed limit of 10mph on the quayside • Remain behind barriers where they are provided • Take on board advice from Port staff and obey their instructions • Report all incidents or anti-social behaviour to the Marina Office • Report all spillages, on the quayside or in the water, to the Marina Office immediately • Wear appropriate Personal Protective and Safety equipment

Don't	Emergency Equipment
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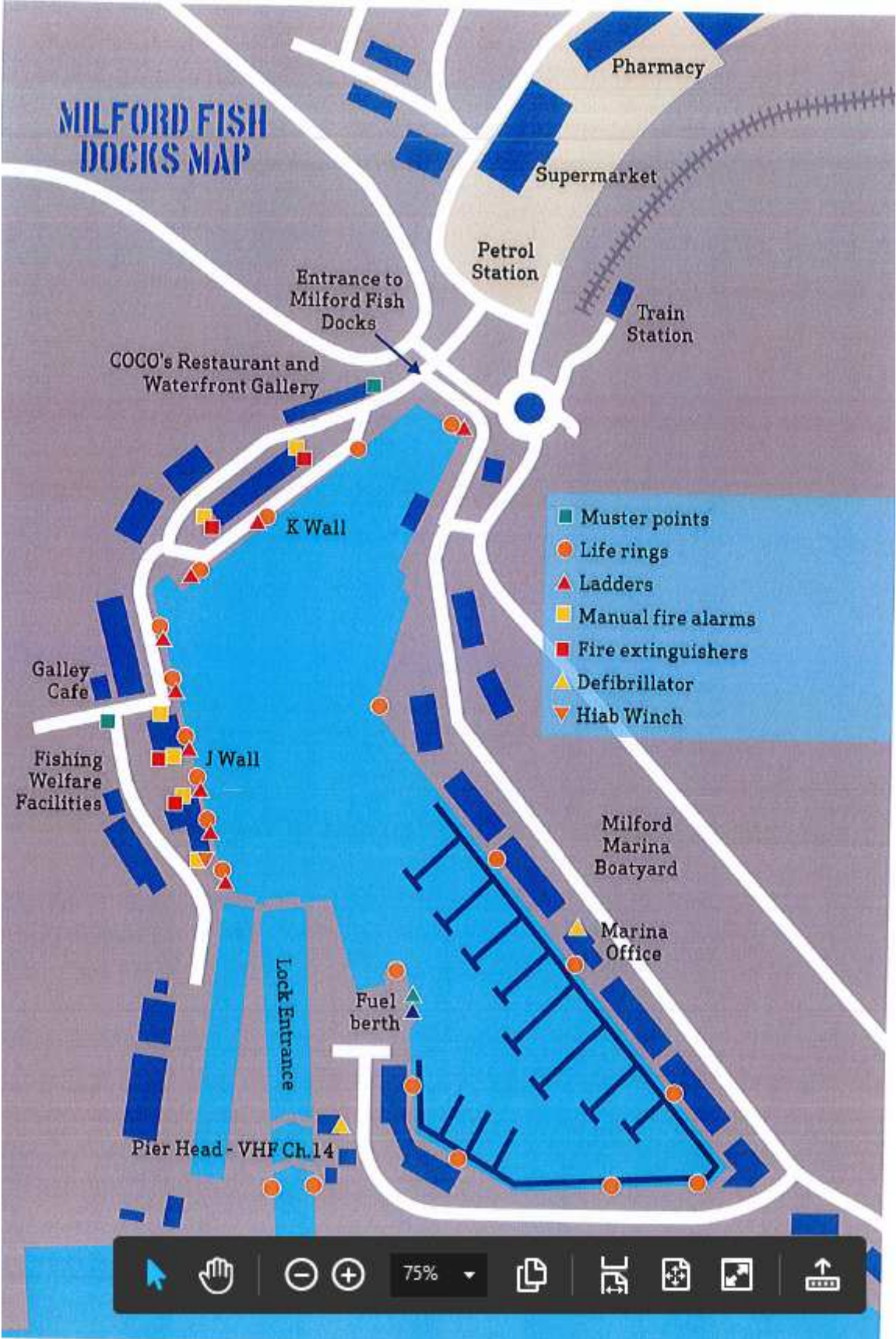


Milford Fish Docks – Terms and Conditions

1. A vessel/agent without approved credit terms is required to settle for all dock dues and services before the vessel's departure. This must be done at the Marina Office which is operated on a 24 hour basis. Terms of credit may be arranged with this company given satisfactory credit checks and references.
2. I agree to abide by The Milford Docks Company Byelaws, regulations and Statutes at all times whilst in the Dock or moored to any of the Company's wharves/jetties outside the Dock entrance. Use of Milford Fish Docks' premises, quays and/or services implies implicit acceptance of these terms of payment, the Company's Standard Trading Terms and Conditions, regulations, procedures and any lawfully given instruction by Milford Fish Docks' personnel
3. I agree that every precaution will be taken to prevent discharge, release or spillage of oils whatever quantity or mixture at any time whilst this vessel enters, leaves or lies within the Dock or is moored to any of the Company's wharves and should any such discharge, release or spillage occur from this vessel, then I hereby undertake to pay all costs relating to the disposal and cleaning thereof
4. A vessel's arrival must be reported as soon as possible and always within 24 hours. This may be done at Pier Head (VHF Ch.14/ +44(0)1646 696310) or at the Marina Office (+44(0)1646 696312)
5. Dock dues and charges are payable in accordance with current tariff in respect of every vessel entering the Dock, or berthing at any wharf, quay, pier or other work of the Company.
6. The Company reserves the right at any time to amend, cancel, increase or otherwise revise its charges for any of the facilities or services which it may from time to time provide.
7. Vessels in Milford Fish Docks must supply their own ladders and safety nets. Masters of the vessel/s are advised of the following:
 - a) Brows (means of access) shall be secured to the vessel at the inboard end and shall be positioned to ensure that personnel cannot fall to either side of the brow. Steps should be fitted at ends where required.
 - b) All brows should have a valid test certificate and ladders shall be visually inspected by competent person to ensure that they are safe and free of defects

Contact details: Tel: +44(0)1646 696312 Mobile: +44(0)7970 029486 VHF Ch.14
In the event of an emergency, dial 999!

A0 signage in the port – part 1



A0 signage in the port – part 2

Safety Information and Guidance

Beware of

- Unprotected dock quayside edges - you must wear lifejackets if you are within 1 metre of the edge
- Deep and cold water
- Moving vehicles and heavy plant on quaysides
- Moving vessels within the dock basin
- Mooring lines, wires and other obstructions
- Tidal range - call Pier Head on VHF Ch.14 to confirm the water level range and adjust mooring lines accordingly

Always

- Use a gangway or ship's ladder to embark and safely disembark vessels
- Keep away from operational areas unless working in them
- Keep within designated walkways and traffic lanes
- Keep to below the speed limit of 10mph on the quayside
- Remain behind barriers where they are provided
- Take on board advice from Port staff and obey their instructions
- Report all incidents or anti-social behaviour to the Marina Office
- Report all spillages, on the quayside or in the water, to the Marina Office immediately
- Wear appropriate Personal Protective and Safety equipment

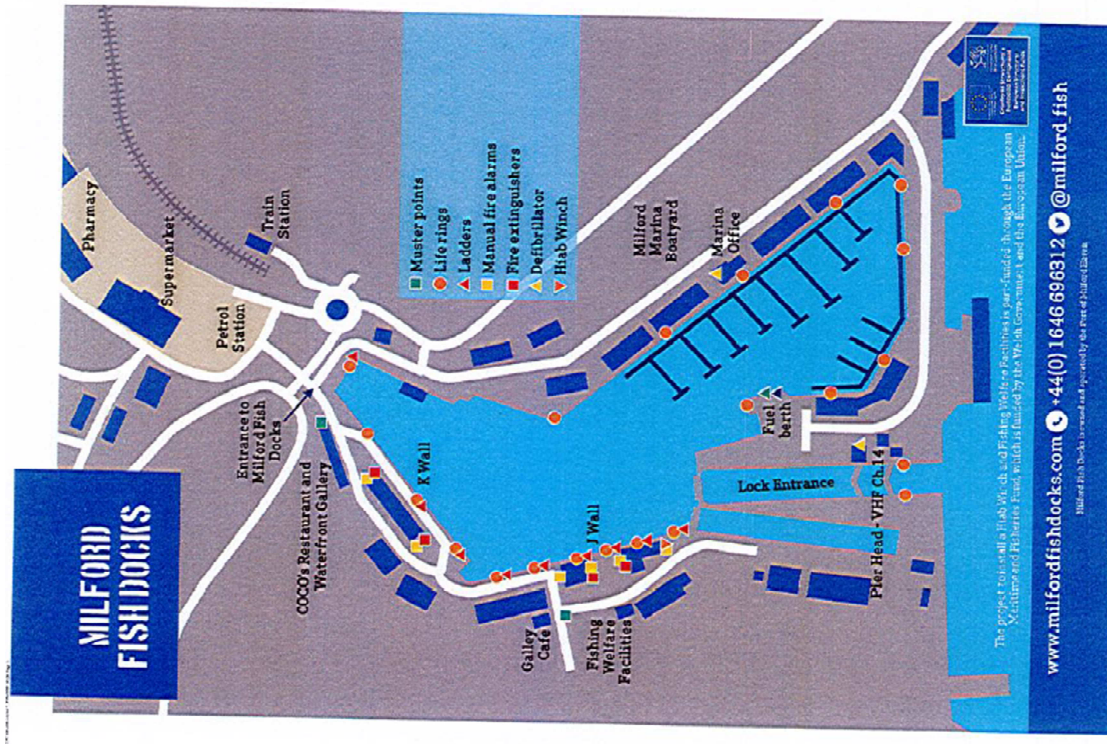
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Emergency Equipment

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In the event of an emergency dial 999!



Federal Bureau for the Investigation of Maritime Accidents

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